



U.S. HOUSE OF REPRESENTATIVES

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Committee on Appropriations – Democratic Staff

# President Bush and Congressional Republicans Undermine Lifesaving NIH Research

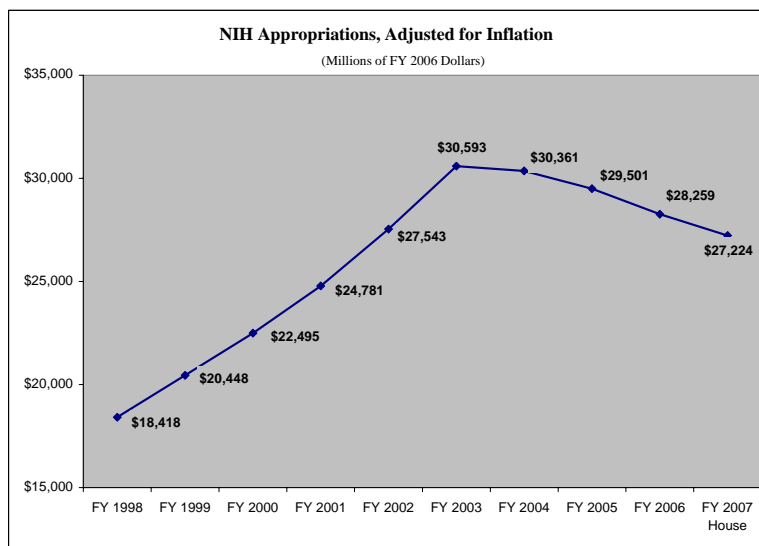
July 26, 2006

In 1999, Congress undertook a bipartisan effort to double the budget of the National Institutes of Health (NIH) over five years in order to capitalize on advances in basic understanding of molecular biology and genetics and begin to translate those advances into better ways of diagnosing and treating diseases like cancer and Alzheimer's and diabetes. Since that time, much progress has been made: the first map of the human genome has been completed, much more is known about the links between genetics, molecular processes and diseases, and new techniques have been developed in biological imaging and computing.

Rather than building on these advances, President Bush and Congressional Republicans have reversed direction. Ever since the doubling was completed, the NIH budget has been going backward in terms of the research it can support.

**Bush and Congressional Republicans Slam the Breaks on Health Research.** NIH's budget in 2004 and 2005 failed to keep up with inflation. In 2006, it was cut in actual dollar terms for the first time in 36 years – by \$62 million. This year, the President and Congressional Republicans propose freezing NIH funding at the previous year's level.<sup>1</sup>

**Republican Bill Would Result in 11 Percent Loss of NIH Purchasing Power.** The Committee-passed 2007 Labor-HHS-Education bill would result in a 3.7 percent loss of purchasing power compared to the previous year after adjustments for inflation in research costs. Compared to 2003, the bill would result in an 11 percent loss of purchasing power.<sup>2</sup>



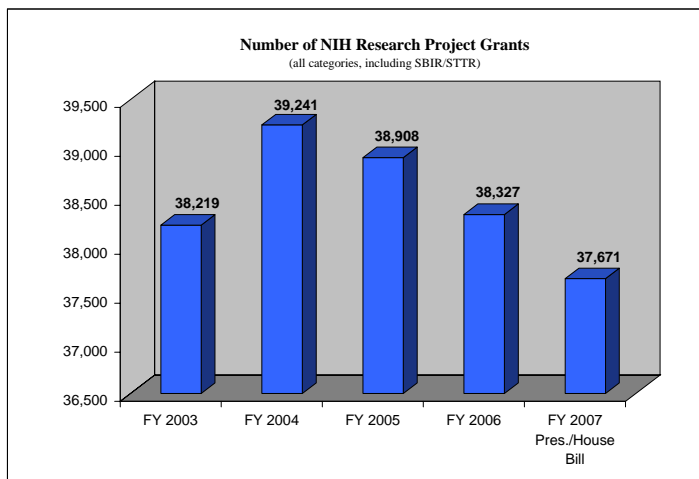
**All 19 Institutes Face Cuts.** When we look at the individual research institutes that make up NIH, the results are even worse. Under the Republican bill, all 19 institutes would receive less funding in 2007 compared to two years ago and significantly less when inflation is taken into account, which makes these cuts more severe each year. For example, when adjusted for inflation:

- The **National Cancer Institute** is 4.5 percent below FY 2006 and 12.3 percent below FY 2003.
- The **National Heart, Lung and Blood Institute** is 4.3 percent less than FY 2006 and 12.1 percent less than FY 2003.
- The **National Institute of Neurological Disorders and Stroke** is down 4.3 percent from FY 2007 and 11.3 percent from FY 2003.

**The Number Of NIH Research Project Grants Is Falling.** These grants—which provide basic support for peer-reviewed medical research at universities, hospitals and research institutions throughout the country—are the core of the NIH program and account for more than half of the NIH budget. The total number of research project grants peaked in 2004, decreased in each of the following two years, and is projected by NIH to drop again in 2007 based on the President's budget

and the Republican Labor-HHS-Education bill. The projected cumulative reduction is 1,570 grants, from 39,241 in FY 2004 to 37,671 in FY 2007.<sup>3</sup>

**Inflation Adjustments For Research Project Grants Abandoned.** In the past, NIH has provided annual increases for these grants, which normally last for three to five years, to cover increases in research costs. That policy has been mostly discontinued in 2006 due to lack of funds and would



be completely abandoned in 2007. In addition, neither the President's budget nor the House Republican bill allow for any increase in the average size of new grants. So, not only will the number of research grants drop the grants that are funded will buy less.

### Percentage of Grant Applications Funded Down More Than One Third.

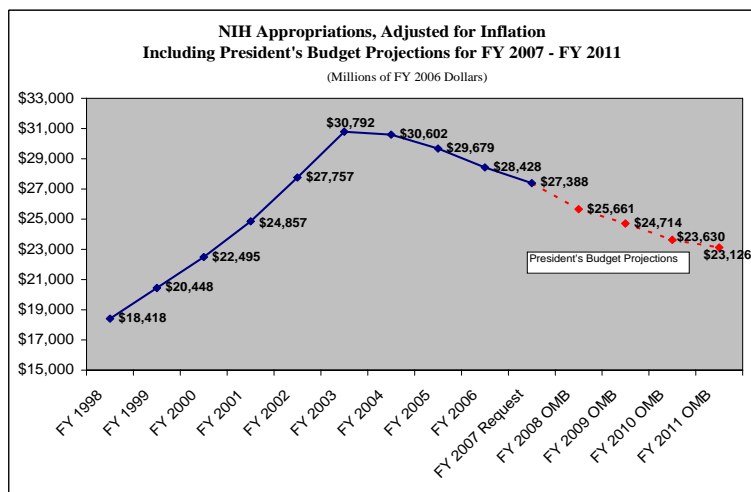
At the end of the doubling period in 2003, roughly 30 percent of applicants for NIH research project grants received funding. By 2005, NIH was

able to fund only 22 percent. That figure is projected to drop further, to 19 percent, in 2006 and stay at 19 percent in 2007.<sup>4</sup> As a result, researchers with expiring grants will have a harder time securing a replacement grant and young scientists will find it more difficult to get their first independent research grant.

**Funds for Clinical Trials to Test New Treatments Decreasing.** According to the President's budget, NIH will have \$33 million less to spend on clinical trials in FY 2007 than it had two years earlier—representing an 9 percent loss in purchasing power over two years.<sup>5</sup> Clinical trials are crucial in translating medical research into new treatments by testing how well potential new drugs, therapies and diagnostic methods actually work.

### President's Budget Cuts NIH Further; House Republican Budget May Lead to Deeper Reductions.

According OMB data, the President's planned budgets cut NIH funding by \$653 million in actual dollar terms between 2007 and 2011. Adjusted for inflation, the NIH budget in 2011 would be about 19 percent smaller than in FY 2006.<sup>6</sup> The House Republican budget resolution sets totals for domestic appropriations that are even lower than the President's budget for each of fiscal years 2008 through 2011, creating an even tighter squeeze on NIH.



## Why NIH Health Research Matters

**Past Medical Research Helped Fight Many Diseases.** Some of the most dramatic progress has come in the area of heart disease and stroke, where death rates have fallen by 53 percent and 64 percent respectively between 1970 and 2003.<sup>7</sup> Much of this improvement can be traced to the results of medical research, which led to a better understanding of the risk factors for heart disease, the development of cholesterol-lowering drugs, “clot busting” medication to improve stroke recovery, better diagnostic and surgical techniques for heart disease, and many other advances.

- ✓ **Cancer Death Rates Falling.** Progress against cancer has been slower, but cancer death rates have been dropping steadily since 1990 with age-adjusted death rates from all forms of cancer decreasing by 12 percent between 1990 and 2003.<sup>8</sup> Medical research has led to better early detection and improved therapies for a number of cancers.
- ✓ **Invaluable Childhood Vaccines Developed.** The development of vaccines has virtually eliminated a number of infectious diseases that used to be serious problems of childhood. For example, in 1970, 104,953 cases of mumps and 56,552 cases of German measles were reported in the United States. In 2003, the numbers were 231 cases of mumps and seven cases of German measles.<sup>9</sup>
- ✓ **New Drugs Reduce AIDS Death Rates.** With the development of effective antiretroviral drugs, the death rate from AIDS has been cut by more than two-thirds in the United States between 1995 and 2003<sup>10</sup> while the number of new AIDS cases in children has been cut by more than 90 percent.<sup>11</sup>

**NIH Research Continues To Produce Results.** Basic research funded by NIH led to one of the first vaccines to prevent cancer: the vaccine just approved by the FDA last month against certain strains of human papillomavirus (HPV), which are believed to be the cause of 70 percent of cervical cancers.<sup>12</sup> NIH was also heavily involved in research leading to the development of Herceptin, a targeted anti-cancer drug shown to be effective in treating breast cancers with particular genetic characteristics. Another recent success involved the development and trial of drug-coated stents that have proven successful in keeping arteries open after surgery to remove blockages. These are just a few examples of the recent results being obtained from NIH research.

**On the Verge of New Advances and Therapies.** With the availability of vast amounts of genetic information, including the complete sequence of the human genome and the development of high volume techniques for studying genes, proteins and other chemicals, medical researchers are now poised to translate these advances into better diagnostics and therapies. These advances offer the prospect of earlier detection and better diagnoses of diseases, “rational” approaches to drug development based on better understanding of the molecular processes being targeted, and the ability to identify drugs and other therapies most likely to be effective based on the genetic makeup of individual patients.

***A shrinking NIH budget will impede progress on these and other medical research fronts.***

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<sup>1</sup> In fact, the FY 2007 Labor-HHS-Education bill as approved by Committee provides \$100 million less than the President's request, reflecting elimination of the \$100 million provided to NIH for transfer to the Global Fund to Fight HIV/AIDS, Malaria and Tuberculosis. While this is a serious cut in a vital program, it is not really related to NIH, which simply serves as a pass through for the funds. Therefore, figures in this report reflect the NIH budget excluding the Global Fund transfer. Were the transfer included, the FY 2007 cuts would be larger.

<sup>2</sup> All inflation adjustments in this paper were made using the Biomedical Research and Development Price Index (BRDPI), February 6, 2006 version, as computed by the Commerce Department's Bureau of Economic Analysis and projected for future years by NIH.

<sup>3</sup> Data on the number of research project grants comes from the FY 2007 Department of HHS "Justification of Estimates for Appropriations Committees", NIH volume I, page NIH-86, and include research grants under the Small Business Innovation Research and Small Business Technology Transfer programs. HHS estimates for the President's budget are also used for the House appropriations bill, since the bill is identical to the budget request in all relevant aspects.

<sup>4</sup> Data on "success rates" for grant applicants comes from the FY 2007 Department of HHS "Justification of Estimates for Appropriations Committees", NIH volume I, page NIH-87.

<sup>5</sup> Data on projected spending for clinical trials comes from the FY 2007 HHS appropriations justifications, page NIH-73; inflation adjustments were made using the BRDPI.

<sup>6</sup> These projections come from an OMB computer run accompanying the FY 2007 President's budget headed MAX1721A, "Policy Budget by Agency and Account", and dated 1/23/06. The current-dollar estimates for overall NIH discretionary appropriations are \$28.410 billion in FY 2006, \$28.428 billion in FY 2007, \$27.637 billion in FY 2008, \$27.606 billion in FY 2009, \$27.363 billion in FY 2010, and \$27.774 billion in FY 2011. (Unlike other figures used in this paper, the OMB estimates include both the Global Fund transfer and small amounts provided in the Interior and Environment Appropriations Act.) Inflation adjustments were made using BRDPI.

Although OMB emphasizes that projections like these are simply made by formula and that decisions about future-year funding for specific programs will not be made until annual budgets are prepared for those years, the projections do indicate the "out-year" implications for NIH of the overall budget plan presented by the President this year.

<sup>7</sup> Centers for Disease Control and Prevention, National Center for Health Statistics, *Health United States 2005*, Tables 36 and 37.

<sup>8</sup> *Health United States 2005*, Table 38.

<sup>9</sup> *Health United States 2005*, Table 51.

<sup>10</sup> *Health United States 2005*, Table 42.

<sup>11</sup> Centers for Disease Control and Prevention, *Cases of HIV Infection and AIDS in the United States, 2004*, Figure 1.

<sup>12</sup> See *Statement from the National Cancer Institute on FDA Approval of the HPV Vaccine*, 6/8/06, <http://www.cancer.gov/newscenter/pressreleases/HPVStatement>.